

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:
a cartridge detachably mounted thereon, having
unitized as one piece one or more of a photosensitive
5 body on which an electrostatic latent image is formed,
charging means for charging said photosensitive body,
and developing means for developing the electrostatic
latent image formed on said photosensitive body and
including a storage medium capable of storing
10 electronic information;
exposing means for exposing said photosensitive
body; and
means for detecting a used amount of said
cartridge,
15 wherein said storage medium has information stored
in advance for determining an exposure condition
specific to each cartridge and has an area for writing
a used amount information of said cartridge detected by
said detecting means, and performs control for changing
20 the exposure condition of said photosensitive body
based on said information for determining the exposure
conditions and said used amount information.
2. An image forming apparatus according to claim
25 1, wherein the used amount information of said
cartridge is rotation time of said photosensitive body,
said charging means or said developing means, bias

application time for said charging means or said
developing means, a remaining amount of developer,
number of printed sheets, number of image dots forming
an image on said photosensitive body, an integrated
5 value of luminescent time of a laser when exposing said
photosensitive body, film thickness of said
photosensitive body, or value combined by assigning
weights to the respective used amounts.

10 3. An image forming apparatus according to claim
1, wherein the information for determining exposure
condition specific to said cartridge includes at least
one of a manufacturing lot of said photosensitive body,
a value according to an electrical characteristic of
15 said charging means, and information according to
contact pressure of the cleaning blade abutting against
said photosensitive body.

20 4. An image forming apparatus according to claim
1, wherein the information for determining the exposure
condition specific to said cartridge is threshold
information for changing the exposure condition and
said exposure condition is changed when the used amount
of said cartridge reaches the threshold.

25 5. The image forming apparatus according to claim
1, wherein said storage medium has a table

corresponding to said threshold information and said exposure condition.

6. A cartridge detachably mountable on a main body of an image forming apparatus, having unitized as one piece one or more of a photosensitive body on which an electrostatic latent image is formed, charging means for charging said photosensitive body, and developing means for developing the electrostatic latent image formed on said photosensitive body and including a storage medium capable of storing electronic information, said image forming apparatus comprising:

exposing means for exposing said photosensitive body; and

means for detecting a used amount of said cartridge,

wherein said storage medium has information stored in advance for determining an exposure condition specific to each cartridge and has an area for writing a used amount information of the cartridge detected by said detecting means, and performs control for changing exposure conditions of said photosensitive body based on said information for determining the exposure condition and said used amount information.

7. A cartridge according to claim 6, wherein the used amount information of said cartridge is rotation

time of said photosensitive body, said charging means
or said developing means, bias application time for
said charging means or said developing means, a
remaining amount of developer, the number of printed
5 sheets, the number of image dots forming an image on
said photosensitive body, an integrated value of
luminescent time of a laser when exposing said
photosensitive body, film thickness of said
photosensitive body, or value combined by assigning
10 weights to the respective used amounts.

8. A cartridge according to claim 6, wherein the
information for determining the exposure condition
specific to said cartridge includes a manufacturing lot
15 of said photosensitive body, an electrical
characteristic value of said charging means or
information according to contact pressure of the
cleaning blade abutting against said photosensitive
body.

9. A cartridge according to claim 6, wherein the
information for determining the exposure condition
specific to said cartridge is threshold information for
changing exposure conditions and said exposure
25 condition is changed when the used amount of said
cartridge reaches the threshold.

10. A cartridge according to claim 6, wherein said storage medium has a table corresponding to said threshold information and said exposure condition.

5 11. An image forming system for forming an image in a recording medium by using a cartridge detachably attachable to an image forming apparatus, said system comprising:

10 a) said image forming apparatus including exposing means, means for detecting a used amount of said cartridge, and control means for changing an exposure condition of said photosensitive body based on information in a storage medium; and

15 b) said cartridge including one or more of a photosensitive body on which an electrostatic latent image is formed by being exposed by said exposing means, charging means for charging said photosensitive body, and developing means for developing the electrostatic latent image on said photosensitive body,
20 and the storage medium having information stored in advance for determining an exposure condition specific to each cartridge and having an area for writing the used amount information of said cartridge detected by said detecting means,

25 wherein said control means changing exposure condition of said photosensitive body based on the information in said storage medium.

12. An image forming system according to claim
11, wherein the used amount information of said
cartridge is rotation time of said photosensitive body,
said charging means or said developing means, bias
5 application time for said charging means or said
developing means, a remaining amount of developer, the
number of printed sheets, the number of image dots
forming an image on said photosensitive body, an
integrated value of luminescent time of a laser when
10 exposing said photosensitive body, film thickness of
said photosensitive body, or value combined by
assigning weights to the respective used amounts.

13. An image forming system according to claim
15 11, wherein the information for determining exposure
condition specific to said cartridge includes at least
one of a manufacturing lot of said photosensitive body,
a value according to an electrical characteristic of
the charging means, and information according to
20 contact pressure of the cleaning blade abutting against
said photosensitive body.

14. An image forming system according to claim
11, wherein the information for determining the
25 exposure conditions specific to said cartridge is
threshold information for changing the exposure
condition and said exposure condition is changed when

the used amount of said cartridge reaches the threshold.

15. An image forming system according to claim
5 11, wherein said storage medium has a table
corresponding to said threshold information and said
exposure condition.

16. A storage medium capable of storing
10 electronic information mounted on a cartridge
detachably mountable on a main body of an image forming
apparatus comprising means for detecting a used amount
of said cartridge, said medium having unitized as one
piece one or more of a photosensitive body on which an
15 electrostatic latent image is formed, charging means
for charging said photosensitive body, and developing
means for developing the electrostatic latent image
formed on said photosensitive body,

wherein said storage medium has information stored
20 in advance for determining an exposure condition
specific to each cartridge and has an area for writing
a used amount information of said cartridge detected by
said detecting means.

25 17. A storage medium according to claim 16,
wherein the used amount information of said cartridge
is rotation time of said photosensitive body, said

charging means or said developing means, bias
application time for said charging means or said
developing means, a remaining amount of developer,
number of printed sheets, number of image dots forming
5 an image on said photosensitive body, an integrated
value of luminescent time of a laser when exposing said
photosensitive body, film thickness of said
photosensitive body, or value combined by assigning
weights to the respective used amounts.

10 18. A storage medium according to claim 16,
wherein the information for determining exposure
condition specific to said cartridge includes a
manufacturing lot of said photosensitive body, an
15 electrical characteristic value of said charging means
or information according to contact pressure of the
cleaning blade abutting against said photosensitive
body.

20 19. A storage medium according to claim 16,
wherein the information for determining the exposure
condition specific to said cartridge is threshold
information for changing the exposure condition and
said exposure condition is changed when the used amount
25 of the above described cartridge reaches the threshold.

20. A storage medium according to claim 16,

wherein said storage medium has a table corresponding to said threshold information and said exposure condition.

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